

Claims

- 1 ^{5.10} A method for delay control adjustment in the uplink direction in a cellular telecommunications network comprising a plurality of functionally interconnected nodes for transmission of data, characterized in that
- 5 at least one first node sends (130) a timing adjustment command to at least one second node, if at least one uplink data packet sent by said at least one second node arrives at said at least one first node at a point in time, which point in time is outside a predefined time period, and
- 10 at least one node functions as said at least one first node in view of at least one node preceding it in the uplink direction in the network structure, and as said at least one second node in view of at least one node following it in the uplink direction in the network structure.
- 15 2. A method according to claim 1, characterized in that at least one of said at least one second node is a base station (20).
3. A method according to claim 1, characterized in that at least one of said at least one first node is a protocol control block (32) of a radio network controller.
- 20 4. A method according to claim 1, characterized in that at least one of said nodes is a combining unit (33).
5. A method for delay control adjustment in the downlink direction in a cellular telecommunications network comprising a plurality of functionally interconnected nodes for transmission of data, characterized in that
- 25 at least one second node sends (230) a timing adjustment request to at least one first node, if at least one downlink data packet sent by said at least one first node arrives at said at least one second node at a point in time, which point in time is outside a predefined time period, and
- 30 at least one node functions as said at least one second node in view of at least one node preceding it in the downlink direction in the network structure, and as said at least one first node in view of at least one node following it in the downlink direction in the network structure.
- 35 6. A method according to claim 5, characterized in that at least one of said at least one second node is a base station (20).

7. A method according to claim 5, characterized in that at least one of said at least one first node is a protocol control block (32) of a radio network controller.

5 8. A method according to claim 5, characterized in that at least one of said nodes is a splitting unit (33).

10 9. A system in a cellular telecommunications network for controlling delays between a radio network controller and at least one base station, characterized in that the system comprises

- 15 - a radio network controller for controlling the transfer of data,
- at least one intermediate node (33) for forwarding data in the network, which at least one intermediate node is functionally connected to said radio network controller, and
- a base station (20) for sending and receiving data, which base station is functionally connected to said at least one intermediate node, and in that,
- said radio network controller is arranged to send a timing adjustment command to at least one of said at least one intermediate node as a response to reception of at least one data packet from said at least one of said at least one intermediate node after a predetermined time period,
- and said at least one intermediate node is arranged to send a timing adjustment command to said base station as a response to reception of at least one data packet from said base station after a predetermined time period.

25 10. A system according to claim 9, characterized in that said base station (20) is arranged to send a timing adjustment request to at least one of said at least one intermediate node (33) as a response to reception of at least one data packet from said at least one of said at least one intermediate node after a
30 predetermined time period.